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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,202	01/16/2004	Tomoyuki Kojima	0051-0218P	4867

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EXAMINER

MATTHEWS, TERRELL HOWARD

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,202	KOJIMA ET AL.	
	Examiner	Art Unit	
	Terrell H. Matthews	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/16/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Claims 1-14 are pending in the instant application

Claim Objections

Claims 7-8 are objected to because of the following informalities: Claims 7-8 state the term "communication" without giving proper clarification to exactly what is communicated. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 10-11, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Garcia (5842579)

Referring to claim 1. Garcia discloses an "electrical circuit component handler" as claimed. See Figs. 1-6, 15 and respective portions of the specification. Garcia discloses a conveyor table (7), which includes a rotating test plate (8) that is vertically positioned and inclusive of a plurality of work-storing pockets (10) (See Col. 3 l. 45-47), a work supply apparatus (8), a work inspection apparatus (20), and a sorting and ejecting apparatus (22) (See Col. 4 l. 37).

Referring to claim 2. Garcia discloses a work inspection system inclusive of a table base (6) disposed on the rear surface of the conveyor table (See Col. 3 l. 46) and

Art Unit: 3654

circumferential vacuum sucking grooves (11), which are in communication with the work-storing pockets (See Col. 4 I. 3,8-10, 14-16).

Referring to claim 3. Garcia discloses a work inspection system that has work-storing pockets that are in communication with the vacuum sucking grooves of the table base. (See Col. 4 I. 16-18).

Referring to claim 4. Garcia discloses a work inspection system inclusive of a work supply apparatus that includes an inclined guide chute (122) (See Col. 11 I. 7), which is downwardly inclined (See Fig. 1,13) and a distribution chute (118) for introducing the works to the work-storing pockets (See Col. 11. I. 7)

Referring to claim 5-6. Garcia discloses the invention as described above. Garcia further discloses a horizontal guide chute (118) for supplying the works which is horizontally extended to the conveyor table and a distribution chute (114) for introducing the works from the horizontal guide chute to the work-storing pockets (See Col. 11 I. 7 & Col. 9 I. 18-20). Additionally Garcia discloses that the shaker (120) vibrates the feeder tray to move the items to the funnel (114).

\ Referring to claim 10. Garcia discloses a work inspection system inclusive of a work supply apparatus that includes means for detecting a remaining amount of works in the distribution chute. Garcia further discloses that there are four optic cables (160), coupled to photo-detectors, whose light admitting ends face the holes defined in the loading frame and that the holes are for focusing the emitted light to the center of each pocket so that if a component is in the pocket, the component will block the emitted light. Without a component in the pocket, the light will be allowed to pass so that any

Art Unit: 3654

components in the pockets after passing by the ejection manifold can be detected due to the fact that they will interrupt a jam sensor by blocking the light (See Col. 10 l. 43-53).

Referring to claim 11. Garcia discloses a work inspection apparatus that has a pair of probes (24) being capable of contacting the works in the work-storing pockets from the front (25) and rear (23) surfaces of the conveyor table (See Col. 4 l. 45) and where the probe on the rear surface side of the conveyor table is supported by a base which is disposed on the rear surface of the conveyor table (See Fig 3, 7-9). It is understood from Figs. 1 & 3 that the contactor probes (24) are supported by the base (6), which is disposed on the rear surface of the conveyor table.

Referring to claim 13. Garcia discloses a work inspection system inclusive of a sorting and ejecting apparatus that includes means for jetting air to the works in the work-storing pockets, the means being disposed on the rear surface side of the conveyor table. Garcia further discloses that the works are ejected from the pockets by a blast of air from beneath/behind the pockets, and the air forces them to pass through the tube couplers into respective ejection tubes (84) (See Col. 7 l. 25-29). It is understood from Fig. 11 that the means for jetting air is disposed on the conveyor table

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3654

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia in view of Scholten (3097743).

Referring to claim 7-8. Garcia discloses the device as disclosed above. Garcia does not disclose the distribution chute with V-shaped transfer grooves, which are in communication with the work-storing pockets as recited in claim 7. Scholten discloses an inspection method and machine as claimed. See Figs. 1-3 and respective portions of the specification. Scholten further discloses chutes (28) that have V-shaped grooves (28a) for guiding the items as they fall to align their longitudinal axes in the direction of travel (See Col. 6 l. 56-59). It would have been obvious to modify the distribution chute to include V-shaped transfer grooves as taught by Scholten so that the items could be aligned properly during transfer to make it easier for the work storing pockets to receive.

Referring to claim 9. Garcia discloses the invention as described above. Garcia does not disclose that each V-shaped groove has a cross-section whose opening degree is equal to or more than 90°. Scholten discloses an inspection method and machine as described above. See Figs. 1-3 and respective portions of the specification. Scholten further discloses chutes (28) that have V-shaped grooves (28a) for guiding the items as they fall to align their longitudinal axes in the direction of travel

Art Unit: 3654

(See Col. 6 l. 56-59). It can be broadly construed that the V-shaped transfer grooves disclosed by Scholten have an opening degree equal to or more than 90°. It would have been obvious to modify Garcia's system and replace the distribution chute with that of Scholten so that the items could be aligned properly during transfer to make it easier for the work storing pockets to receive.

Claims 12, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia.

Referring to claim 12. Garcia discloses the invention as described in detail above. Garcia does not disclose a probe on the rear surface side of the conveyor table held on the base by a clamp bar which is slide on the base by the rotation of an eccentric cam as recited in claim 12. Garcia does disclose a probe (24) on the rear surface side of the conveyor table held on the base by a clamp bar (31) secured by rotation of a screw however (See Col. 5 l. 35-40). It would have been obvious at the time of the invention to modify Garcia's system to include an eccentric cam to secure the probe on the base. This would have been done so that the probe could be slid and secured into the proper place on the conveyor table.

Referring to claim 14. Garcia discloses the invention as described above. Garcia does not disclose a pusher for pushing the conveyor table to disengage the same from the table base located on the rear surface side of the conveyor table as recited in claim 14. Garcia does disclose in his invention however, that the test plate (8) rest upon the conveyor table (7) and is properly located thereon by a plurality of locator pins (15) that

Art Unit: 3654

mate with locator holes (17). It is understood from the specification and Figs 3 & 4 that the locator pins and holes are there to facilitate easy replacement and installation of test plates. It would have been obvious to modify Garcia's invention to include a pusher for disengaging the conveyor table from the table in order to facilitate easy replacement and installation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Van Haften U.S. Patent No. 2, 316,375 discloses a sorting machine feeding and ejecting device inclusive of a vertical rotary conveyor, inspection and ejecting apparatus, and work-storing pockets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrell H. Matthews whose telephone number is (571) 272-5929. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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